



## SEQUENCE LISTING

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Yagi, Shintaro

<120> METHOD FOR MEASUREMENT OF HEPATITIS C VIRUS

<130> 594.352USWO

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<141> 2000-03-28

<150> JP 10-216094

<151> 1998-07-30

<150> PCT/JP99/04129

<151> 1999-07-30

<160> 11

<170> PatentIn version 3.1

<210> 1

<211> 177

<212> PRT

<213> Hepatitis C virus

<400> 1

Met Lys Ala Ile Phe Val Leu Lys Gly Ser Leu Asp Arg Asp Pro Glu  
1 5 10 15

Phe Met Gly Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr  
20 25 30

Asn Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val  
35 40 45

Gly Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg  
50 55 60

Ala Thr Arg Lys Thr Ser Lys Arg Ser Gln Pro Arg Gly Gly Arg Arg  
65 70 75 80

Pro Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro  
85 90 95

Gly Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly  
100 105 110

Trp Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp

115

120

125

Pro Arg His Arg Ser Arg Asn Val Gly Lys Val Ile Asp Thr Leu Thr  
130 135 140

Cys Gly Phe Ala Asp Leu Met Gly Tyr Ile Phe Arg Val Gly Ala Phe  
145 150 155 160

Leu Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu  
165 170 175

Asp

<210> 2  
<211> 160  
<212> PRT  
<213> Hepatitis C virus

<400> 2

Met Gly Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn  
1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly  
20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala  
35 40 45

Thr Arg Lys Thr Ser Lys Arg Ser Gln Pro Arg Gly Gly Arg Arg Pro  
50 55 60

Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly Lys Pro Gly  
65 70 75 80

Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Leu Gly Trp Ala Gly Trp  
85 90 95

Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro  
100 105 110

Arg His Arg Ser Arg Asn Val Gly Lys Val Ile Asp Thr Leu Thr Cys  
115 120 125

Gly Phe Ala Asp Leu Met Gly Tyr Ile Phe Arg Val Gly Ala Phe Leu  
130 135 140

Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp  
145 150 155 160

<210> 3  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Fused polypeptide including Hepatitis C virus sequence.

<400> 3

Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly Gly Val Tyr Leu  
1 5 10 15

Leu Pro Arg Arg  
20

<210> 4  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Fused polypeptide including Hepatitis C virus sequence.

<400> 4

Gly Pro Arg Leu Gly Val Arg Ala Thr Arg  
1 5 10

<210> 5  
<211> 21  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Fused polypeptide including Hepatitis C virus sequence.

<400> 5

Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro Arg His Arg  
1 5 10 15

Ser Arg Asn Val Gly  
20

<210> 6  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Fused polypeptide including Hepatitis C virus sequence.

<400> 6

Asp Pro Arg His Arg Ser Arg Asn Val Gly Lys Val Ile Asp Thr Leu  
1 5 10 15

Thr Cys Gly Phe  
20

<210> 7  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for polymerase chain reaction.

<400> 7  
gaattcatgg gcacgaatcc taaa

24

<210> 8  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for polymerase chain reaction.

<400> 8  
ttagtcctcc agaaccgga c

21

<210> 9  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Portion of Hepatitis C virus sequence.

<400> 9

Thr Asn Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile  
1 5 10 15

<210> 10  
<211> 1197  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Nucleotide sequence coding for chimeric antigen.

<220>  
 <221> CDS  
 <222> (1)..(1188)  
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<400> 10  
 gaa ttc acc aaa gtg ccg gtt gct tat gcg gcc aaa ggt tat aag gtc 48  
 Glu Phe Thr Lys Val Pro Val Ala Tyr Ala Ala Lys Gly Tyr Lys Val  
 1 5 10 15

ctg gtt ctg gac ccg agc gtt gcc agc acc ctg ggt ttc ggc gcg tat 96  
 Leu Val Leu Asp Pro Ser Val Ala Ser Thr Leu Gly Phe Gly Ala Tyr  
 20 25 30

ctg agc aag gcc cat ggt gtg aac ccg aac atc cgc acg ggc atc cgt 144  
 Leu Ser Lys Ala His Gly Val Asn Pro Asn Ile Arg Thr Gly Ile Arg  
 35 40 45

acc gtt acc acc ggt gct ccg gtg acc tat tcc acc tac ggt aaa tac 192  
 Thr Val Thr Thr Gly Ala Pro Val Thr Tyr Ser Thr Tyr Gly Lys Tyr  
 50 55 60

ctg gcg gac ggc ggt tgc gcc ggc ggt gcg tac gat gtg atc gga tct 240  
 Leu Ala Asp Gly Gly Cys Ala Gly Gly Ala Tyr Asp Val Ile Gly Ser  
 65 70 75 80

gga gag gag gtg gcc ctg tct aac act gga gag gtc ccc ttc tat ggc 288  
 Gly Glu Glu Val Ala Leu Ser Asn Thr Gly Glu Val Pro Phe Tyr Gly  
 85 90 95

cgc gcg atc ccg atc gaa gcg atc aaa ggc ggt cgc cat ctg gtt ttc 336  
 Arg Ala Ile Pro Ile Glu Ala Ile Lys Gly Gly Arg His Leu Val Phe  
 100 105 110

tgc cat agc aag gag aaa tgc gat gaa ctg gcg agc gcg ctg tcc gga 384  
 Cys His Ser Lys Glu Lys Cys Asp Glu Leu Ala Ser Ala Leu Ser Gly  
 115 120 125

ttg ggt ctg aac gct gtg gca ttc tat cgc ggt ctg gac gtg agc att 432  
 Leu Gly Leu Asn Ala Val Ala Phe Tyr Arg Gly Leu Asp Val Ser Ile  
 130 135 140

atc ccg acc cag ggc gat gtg gtt atc gtt agc acc gat gcg ctg atg 480  
 Ile Pro Thr Gln Gly Asp Val Val Ile Val Ser Thr Asp Ala Leu Met  
 145 150 155 160

acc ggt ttt acc ggc gat ttt gac tca gtg gtc gac tgt aac aca tgc 528  
 Thr Gly Phe Thr Gly Asp Phe Asp Ser Val Val Asp Cys Asn Thr Cys  
 165 170 175

atc acc cag gga tct gga ctg gta agc ttc gcg agc cat gtg ccg tac 576  
 Ile Thr Gln Gly Ser Gly Leu Val Ser Phe Ala Ser His Val Pro Tyr  
 180 185 190

atc gag cag ggt atg caa ctg agc gaa caa ttt aag cag aag agc ctg 624  
 Ile Glu Gln Gly Met Gln Leu Ser Glu Gln Phe Lys Gln Lys Ser Leu  
 195 200 205

ggc ctg ctg cag acc gcg acc aaa cag gcg gag gcg gcc gcc ccg gtg 672  
 5

Gly	Leu	Leu	Gln	Thr	Ala	Thr	Lys	Gln	Ala	Glu	Ala	Ala	Ala	Pro	Val			
210						215					220							
ggt	ggc	acc	ccg	aaa	agc	cgc	cgt	ccg	gaa	ggt	cgt	gcc	tgg	gcg	caa			720
Val	Gly	Thr	Pro	Lys	Ser	Arg	Arg	Pro	Glu	Gly	Arg	Ala	Trp	Ala	Gln			
225					230					235					240			
ccg	ggt	acc	atc	atc	ctg	agc	ggt	cgt	ccg	gcg	ggt	gta	ccg	gat	cgt			768
Pro	Gly	Thr	Ile	Ile	Leu	Ser	Gly	Arg	Pro	Ala	Val	Val	Pro	Asp	Arg			
				245					250					255				
gaa	gtg	ctg	tat	caa	gaa	ttt	ctc	gag	gcc	tct	aga	gcg	gct	ctc	att			816
Glu	Val	Leu	Tyr	Gln	Glu	Phe	Leu	Glu	Ala	Ser	Arg	Ala	Ala	Leu	Ile			
			260					265					270					
gaa	gag	ggg	caa	cgg	ata	gcc	gag	atg	ctg	aag	tcc	aag	atc	cag	ggc			864
Glu	Glu	Gly	Gln	Arg	Ile	Ala	Glu	Met	Leu	Lys	Ser	Lys	Ile	Gln	Gly			
		275					280					285						
tta	ctg	cag	caa	gcc	tcc	aag	cag	gcc	caa	gac	ata	aaa	atc	gac	ggt			912
Leu	Leu	Gln	Gln	Ala	Ser	Lys	Gln	Ala	Gln	Asp	Ile	Lys	Ile	Asp	Gly			
		290				295					300							
acc	ctg	att	att	ccg	aaa	gat	cgt	cgc	agc	acc	ggt	aaa	agc	tgg	ggt			960
Thr	Leu	Ile	Ile	Pro	Lys	Asp	Arg	Arg	Ser	Thr	Gly	Lys	Ser	Trp	Gly			
305					310					315					320			
aaa	ccg	ggc	ttc	ctc	atc	gat	agc	ttg	cat	atc	aac	cag	cga	gcc	gtc			1008
Lys	Pro	Gly	Phe	Leu	Ile	Asp	Ser	Leu	His	Ile	Asn	Gln	Arg	Ala	Val			
				325					330					335				
ggt	gca	ccg	gac	aag	gag	gtc	ctt	tat	gag	gct	ttt	gat	gag	atg	gag			1056
Val	Ala	Pro	Asp	Lys	Glu	Val	Leu	Tyr	Glu	Ala	Phe	Asp	Glu	Met	Glu			
			340					345					350					
ctc	gcc	atg	ggc	acc	aac	ccg	aaa	ccg	gag	cgt	aaa	agc	aag	cgt	aac			1104
Leu	Ala	Met	Gly	Thr	Asn	Pro	Lys	Pro	Glu	Arg	Lys	Ser	Lys	Arg	Asn			
		355					360					365						
acc	aac	cgt	aaa	ccg	cag	gat	att	aaa	ttc	ccg	ggt	agt	ggt	cag	gtg			1152
Thr	Asn	Arg	Lys	Pro	Gln	Asp	Ile	Lys	Phe	Pro	Gly	Ser	Gly	Gln	Val			
		370				375					380							
gtg	ggt	ggt	gtg	tac	ctg	gtg	ccg	cgt	cgt	ggt	ccg	taaggatcc						1197
Val	Gly	Gly	Val	Tyr	Leu	Val	Pro	Arg	Arg	Gly	Pro							
385					390					395								

<210> 11  
 <211> 396  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Amino acid sequence coding for chimeric antigen.

<400> 11

Glu	Phe	Thr	Lys	Val	Pro	Val	Ala	Tyr	Ala	Ala	Lys	Gly	Tyr	Lys	Val
1				5					10					15	

Leu Val Leu Asp Pro Ser Val Ala Ser Thr Leu Gly Phe Gly Ala Tyr  
20 25 30

Leu Ser Lys Ala His Gly Val Asn Pro Asn Ile Arg Thr Gly Ile Arg  
35 40 45

Thr Val Thr Thr Gly Ala Pro Val Thr Tyr Ser Thr Tyr Gly Lys Tyr  
50 55 60

Leu Ala Asp Gly Gly Cys Ala Gly Gly Ala Tyr Asp Val Ile Gly Ser  
65 70 75 80

Gly Glu Glu Val Ala Leu Ser Asn Thr Gly Glu Val Pro Phe Tyr Gly  
85 90 95

Arg Ala Ile Pro Ile Glu Ala Ile Lys Gly Gly Arg His Leu Val Phe  
100 105 110

Cys His Ser Lys Glu Lys Cys Asp Glu Leu Ala Ser Ala Leu Ser Gly  
115 120 125

Leu Gly Leu Asn Ala Val Ala Phe Tyr Arg Gly Leu Asp Val Ser Ile  
130 135 140

Ile Pro Thr Gln Gly Asp Val Val Ile Val Ser Thr Asp Ala Leu Met  
145 150 155 160

Thr Gly Phe Thr Gly Asp Phe Asp Ser Val Val Asp Cys Asn Thr Cys  
165 170 175

Ile Thr Gln Gly Ser Gly Leu Val Ser Phe Ala Ser His Val Pro Tyr  
180 185 190

Ile Glu Gln Gly Met Gln Leu Ser Glu Gln Phe Lys Gln Lys Ser Leu  
195 200 205

Gly Leu Leu Gln Thr Ala Thr Lys Gln Ala Glu Ala Ala Ala Pro Val  
210 215 220

Val Gly Thr Pro Lys Ser Arg Arg Pro Glu Gly Arg Ala Trp Ala Gln  
225 230 235 240

Pro Gly Thr Ile Ile Leu Ser Gly Arg Pro Ala Val Val Pro Asp Arg  
245 250 255

Glu Val Leu Tyr Gln Glu Phe Leu Glu Ala Ser Arg Ala Ala Leu Ile  
260 265 270

Glu Glu Gly Gln Arg Ile Ala Glu Met Leu Lys Ser Lys Ile Gln Gly  
275 280 285

Leu Leu Gln Gln Ala Ser Lys Gln Ala Gln Asp Ile Lys Ile Asp Gly  
290 295 300

Thr Leu Ile Ile Pro Lys Asp Arg Arg Ser Thr Gly Lys Ser Trp Gly  
305 310 315 320

Lys Pro Gly Phe Leu Ile Asp Ser Leu His Ile Asn Gln Arg Ala Val  
325 330 335

Val Ala Pro Asp Lys Glu Val Leu Tyr Glu Ala Phe Asp Glu Met Glu  
340 345 350

Leu Ala Met Gly Thr Asn Pro Lys Pro Glu Arg Lys Ser Lys Arg Asn  
355 360 365

Thr Asn Arg Lys Pro Gln Asp Ile Lys Phe Pro Gly Ser Gly Gln Val  
370 375 380

Val Gly Gly Val Tyr Leu Val Pro Arg Arg Gly Pro  
385 390 395